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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

FRACTURE OF SKULL.

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Isaac J. Dent, colored, æt. 25, was struck on the head with an iron hoe, on the evening of the 11th of August, 1871. Upon receiving the blow he staggered, but soon regained his consciousness, and walked a distance of about four hundred yards to the nearest drug store.

About an hour afterwards he saw a colored physician, who brought the edges of the wound together by means of a few stitches, and ordered ice cloths and astringents; the bone was exposed, but it was thought that there was only fracture of the external table. Next morning the patient was worse, having passed a restless night, and was vomiting and much excited.

The physician was in attendance ten days, during which time, and subsequently, according to the testimony at the coroner's inquest, there was a puffy swelling of the scalp, shivering fits, and occasional marked stupor. On the seventh or eighth day the wound was reopened to allow exit for the free discharge of pus, and some loose spiculæ, the patient, after the operation, expressing great relief.

This is all that could be learned of the treatment in the case, from which it will be evident that the gravity of the injury was not fully appreciated either by the physician or friends of the patient. It would seem that the relief afforded upon the reopening of the wound alone suggested depression, and would have demanded of an ordinary observing man operative interference. Instead, however, the patient was abandoned to his fate, the delirium and stupor continuing to increase in severity, and remitting from time to time until death took place on the 14th of September.

An autopsy was made forty-eight hours afterwards. On the left side of forehead, a little above the supra-orbital ridge, there was a cicatrix an inch in length nearly healed; under this a depression was felt, and in the centre a small opening, which upon pressure discharged pus. After dissecting back the scalp some more pus escaped from this opening, and a few small spiculæ of bone which were lying loose; the hole in the skull was one-half by three-fourths of an inch, having become nearly circular from inflammatory action. Removal of the calvarium showed an abscess of the greater portion of the anterior left lobe, and congestion of the surface of the brain and its membranes.

Trephining—the operation which was indicated in this case—in various conditions, has its advocates and opponents. To army surgeons chiefly we are indebted for our information on the subject, the peculiar nature of their duties affording more ample opportunity for observation; and yet their views are as conflicting as those in civil life on other branches. It is an established axiom, however, that as the operation itself may destroy life, it should never be resorted to except in extreme cases; that is, where the indications for its use are very decided, have been present for a considerable time, or have not been assuaged by other remedial measures. Now, these indications, as generally admitted, according to Holmes, are first, when a portion of the bone is depressed

and encroaches on the cavity of the skull, producing compression of the brain, and the fragment cannot otherwise be raised; secondly, for punctured fractures by which the inner table is splintered, separated from the outer table, and lying loose on the dura mater; and thirdly, for effusion of blood, or of inflammatory products between the bones and membranes, or between the latter and the brain, when it is presumed that the effused fluid may be evacuated by the opening. It will be seen that two of these three conditions, the first and last, were present in the case described.

Neudorfer, the latest, perhaps, who has written on the subject, takes a bold stand against the present management of injuries to the skull, and is so much prejudiced against the trephine *per se*, that he advises its exclusion from the armamentarium of the military surgeon. He has gone to the extreme of substituting a chisel and mallet for the purpose of removing bone so as to extract foreign bodies from the skull, and to allow exit for the pus. Now leaving out of consideration that in either case the skull is opened, it would seem that blows from a mallet sufficient for such a purpose must necessarily produce injurious shocks to the brain, with the risk of rupturing the vessels, as well as to require a very steady hand to guide the chisel lest it should slip and penetrate the brain or membranes. He recites some remarkable recoveries, however, to substantiate his propositions; and after discussing the classes of cases regarded by most authors as calling for the procedure, he dismisses all with the exception of those in which there is intra-cranial collection of pus.

His views and mode of reasoning against the antiphlogistic treatment so generally employed are singularly interesting, being in direct variance with those of other eminent writers. All moist and cold applications are interdicted, and with the exception of keeping the bowels soluble, no medicine is required. He holds that the use of the probe, and the resort to forceps for the extraction of foreign substances, but particularly the local application of ice, are the most fruitful sources of thrombosis, pyæmia, and fatal meningitis. Blood-letting, leeching, purgatives, rigid diet, mercury and antimonials must not only not be employed as expectant measures, but should be discarded altogether. The following, quoted from a recent reviewer, shows his ingenious argument upon the inefficiency of cold as an antiphlogistic agent.

"It is evident that the supply of blood to any organ depends upon the action of the heart, and the number, size, and powers of resistance of its vessels; so long as these factors are not changed, the mass of blood circulating in the organ remains the same. This position applies to the brain, with the distinction that the quantity of blood carried by the carotids to the structures within and without the skull are capable of compensation; that is, if there be a resistance to the circulation within the skull, the quantity of blood on its exterior will be increased, while, if the reverse be the case, the greater part of the blood will be carried to the interior of the skull. Ice applied to the head can exert no direct influence upon the heart's action; we can only admit of a reflex influence; but it remains to be proved that the reflex action is capable of diminishing the frequency and force of the pulsations of the heart; and if, indeed, such were the case, it would certainly be more rational to apply ice to the breast instead of to the head. Cold acts locally by constringing the vessels of the scalp, and, on account of their diminished capacity, a part of the blood which should have been distributed to the exterior is now directed to the interior of the skull, since the entire amount sent to the head has undergone no change. Instead, therefore, of the vessels of the brain being emptied of blood through the application of cold, a directly reverse effect is produced; they become congested, and, as a result, injurious consequences must ensue. It appears to us that it would be more proper to cover the head with warm applications, by which the volume of the vessels of the scalp would be increased, and on account of their increased capacity a part of the blood would be directed from the brain to the exterior of the cranium. Experience goes to show that even upon the peripheral nerves cold acts very disadvantageously, by greatly weakening, or entirely abolishing the transmission of the nervous fluid. The brain is enclosed in a firm case, which is protected at its base by the surrounding structures, and on its convexity by the hair, which is a bad conductor of heat. We see how carefully old and bald men guard their heads against all changes of temperature, and we can hence imagine the influence which cold would exert when brought in direct contact

with an organ that is so carefully protected by nature against all changes of temperature. Although accurate experiments are wanting to demonstrate the action of cold upon the exposed brain, yet we may judge from analogy that it would be of a paralyzing or destructive nature, and that it should, on these accounts, be avoided."

With regard to the use of wine, and other alcoholic stimulants, he says that they are necessary in anæmic states of the brain. Opium, too, against which so much prejudice exists, is lauded by him, and a nourishing diet allowed when the patient is disposed to eat. Like alcohol in excess, congestion of the brain will only be produced from *full* doses of opium; but in small doses it is questionable whether its peculiar action is called forth, and even if it is, the dose can be proportioned to the effect produced. "It must be borne in mind," he continues, "that hyperæmia of the brain is less to be feared than the opposite condition, and that our efforts should be directed to maintaining that organ in such a degree of turgescence that it will remain on all sides in close contact with the skull, since under these circumstances alone will a wounded brain comport itself as one that is normal. Indeed, the circumstance cannot be too strongly insisted upon, that as soon as the turgescence of the brain—be it through too restricted a diet, loss of blood, or irritation of the injury—has become so much diminished that the greater part of its surface is not in direct contact with the skull, it will be exposed to constant inflammatory irritation from ordinary external influences."

I have dwelt thus long upon the work of Dr. Neudorfer, on account of the extreme doctrines enunciated by him. Such views, after the perusal of the writings of others, are apt to give rise to the most conflicting opinions, and to lead to the impression that the chances of life are just as good when no treatment at all has been adopted. He fails, however, to give the comparative rate of mortality of *all* his cases, and the individual extent of their injury, but satisfies himself with the statement that, after several years' experience, he has found no occasion to depart from this practice. Remarkable recoveries from injury to the skull, without treatment, occasionally come under the notice of physicians, but they are exceptional cases. A colored man came to my office, about six months ago, after walking several squares, with a wound of the head received in a *melee* shortly before. On examination I discovered a fissure of the os frontis, about an inch in length, through which was seen the glistening dura mater. I immediately sent him to the Freedman's Hospital for treatment, but next morning was surprised to find him at the police court, ready to testify against the alleged perpetrator. Dr. Reyburn, who was in charge of the hospital, told me afterwards that they could not keep the fellow in the ward; he ran off, and got well, without a bad symptom.

The views of Neudorfer are new, and to what extent they will be carried out remains to be seen. His large experience in the Schleswig, Italian, and Mexican campaigns entitles them to thoughtful consideration. It would seem to be difficult, however, to supersede the present established practice, which, except the depletion by bleeding, is so tersely summed up in the opinions of Dr. Macleod. This author advocates the trephine only when there is positive indications for its use, either from depression or the presence of pus. "To multiply cases," he says, "would be of little use. The teaching of all was to lead us to wait; to purge the patient thoroughly; to remove only such pieces of bone as could be got at with the forceps, and which were quite detached and loose; to bleed, if need be, locally, and even generally; to use cold applications when there was a fear of inflammation; to enjoin perfect rest, not only to the body generally, but, if possible, to the special senses also, by isolating the patient, and thus removing the stimuli to their exercise; to enforce the lowest diet, and to continue all this treatment for a long period, even after all danger seemed past; and, finally, to treat any incidental complications on general principles."

In conclusion, statistics might be produced showing the comparative rate of mortality of the operation of trephining, both in civil and military life; but as the result in each case must depend upon the individual extent of its injury, and there being no such classification on record, it would be difficult to deduce a satisfactory conclusion from the whole. In severe fractures, where the skull is battered in, for instance, an operation only hastens the fatal termination; while, on the other hand, with lighter injuries, there would be more reasonable hope of success.

EDITORIAL DEPARTMENT.

PERISCOPE.

Remarks on Amputations.

Dr. KEARNEY says, in the Cincinnati *Lancet and Observer*:—

Before attempting a comparison, with the view of determining the relative value of the circular and flap methods, it may be well to consider what are the *desiderata* as regards the ultimate characteristics of the stump. These may be stated to be a complete covering of the stump with healthy integument; a minimum of cicatrix resulting after the healing of the wound; and freedom from adhesion to the end of the bone.

The first of these objects is attained by any of the methods in vogue, as an immediate result; but it is the ultimate condition of the stump which is to be regarded; and, as the maintenance of the covering integument in position is requisite to a satisfactory result, we may consider what method of operating promises best in this respect. In the ordinary double flap operation the muscular tissue in the flaps is bent from the normal direction of its fibres in bringing the free extremities of the flaps into apposition; hence, any amount of contraction in that tissue tends to separate the edges of the skin, and thereby to prevent speedy and close adhesion. Where inflammation, with attendant swelling of the flaps, ensues, the gaping of the edges will probably be very great. When, however, the ends of the cut muscles in the face of the stump are covered with integument only, as in the circular method of amputating, this source of difficulty is avoided. There the retracting muscle is accompanied by the integument applied over its cut extremity, with very little tendency to the disturbance of the most delicate adhesions. Consequently, the tendency to gaping of the edges of the skin, in this form, is limited to what may be due to the natural contractility of that tissue, unless great inflammatory swelling of the limb occurs. Here, we think, we recognize the superiority of the circular over the flap method.

In the second place, as regards the extent of cicatrix remaining after the healing of the operation wound. This result, perhaps, is more distinctly determined by the form of operation selected than any other; for, while the double flap operation, for instance, gives a resulting cicatrix equal to the full diameter of the limb at the point of amputation, minus the shrinkage or contraction it undergoes, only the cicatrix from a circular operation is diminished by this contraction in part, but still more by the folding over and adhesion of the corners of skin at the extremities of the line of union, precisely as the corners of a grocer's paper bag are folded down. Another great advantage which may be recognized in this infolding of the redundant integument is the increased thickness given to the face of the stump by these resulting bosses, which, in fact, consist of three thicknesses of the skin at these points, and which leave the much diminished cicatrix depressed considerably below the general level.

The method by skin flaps, with a circular division of the soft parts, may here be contrasted with the ordinary circular operation. This plan, much practiced and advocated by the late Professor Syme, amounts to the circular operation, with the redundant corners of skin removed. It requires a division of the skin as low as does the circular, and has no single advantage over it that I can conceive of; but, on the other hand, is far inferior, in the fact that it results in a line of cicatrix equal to the full diameter of the part, as in the case of the ordinary double muscular flaps, and is wanting in the other advantages ascribed to the circular method.

The third desideratum mentioned is freedom from adhesion to the end of the bone. Whether this desirable result may be better obtained by one method than the other may, perhaps, be a question of doubt; but, in parts with two bones, the circular operation offers the advantage of allowing the line of union of the margins to be placed in any direction, thus enabling the operator to throw it in the interspace between the bones, and not across their ends.

In certain situations, as low in the leg, this interspace, besides being very narrow, does not correspond with the centre of the limb. To carry out the idea mentioned, in operating here it would be necessary to incise the skin obliquely, leaving it longer on the side most distant from this space. But it is not pretended that this result can be obtained unless the healing process takes place kindly, and in great part by first intention, perhaps; for inflammation and protracted suppuration is most apt to lead to retraction—it may be to the extent of a protrusion of the bone. In the third place, it remains to consider what plan of amputation results in the speediest healing of the wound. This it is difficult to decide positively; but as, according to Ballingall and others, the operation by the circular method at any particular point gives rise to a much less extent of wound than that by the formation of flaps at the same point, and as the immediate union, at least in part, is less apt to be interfered with by muscular contraction or secondary hemorrhage in the circular amputation, that method would

seem to be the one promising the speediest cure.

While claiming so many advantages for the circular method, it is not intended to deny certain others which belong to the flap operation. Among them may be specified celerity in execution, and a more shapely stump, with a thicker covering of soft parts over the end of the bone. These advantages, however, are more seeming than real; for, now that amputations are almost invariably performed with the aid of some anæsthetic, the diminution of time occupied in the operation by a few seconds, or even minutes, is of little importance. Rapidity of execution is only desired, then, as a mere matter of display, and, therefore, is unworthy of consideration. The more shapely appearance of the stump given by the double flap operation does not afford any strong argument in favor of that method, as the ultimate, and not the immediate, character of the stump is what decides the relative value of operative proceedings in this particular. Neither can it be claimed that the much and often extolled "cushion" of muscular tissue which covers the end of the bone in ordinary flap operations is a real advantage, for this cushion is not permanent, but shrinks and wastes in the course of time, as the muscular tissue degenerates, so that the covering of the end of the stump comes, at least, to consist of little, if anything, more than integument.

But there are other serious objections to the flap. A prominent one is the oblique section of the vessels, which leaves them in a state unfavorable to closure by the retraction of their coats; and hence the necessity for a greater number of ligatures than when they are cut square. For the same reason, secondary hemorrhage is much more apt to occur after a flap than after a circular operation.

The arguments in favor of the circular mode of amputating may be briefly repeated, as follows: A less extent of wound surface; better prospects for immediate union, the wound being less under the influence of muscular contraction; diminished risk of secondary hemorrhage, and irritation from ligatures, through the square division of the vessels. To these may be added, that an amputation at any given point of bone may be accomplished by the circular method with the aid of less of the soft tissues below that point than is necessitated in the formation of flaps. Or, in other words, the level at which the integument is to be divided being determined, the bone may be divided at a lower point in operating by this plan than when the flap method is used.

While advocating, as a rule, the superiority of the circular over the flap method, I am not denying the greater advantages of the latter in certain cases. Thus, where rapidity of execution is essential, as at the hip, the flap method should be preferred. And in cases where, from the condition of the soft parts, the section of the bone might be made at a lower point than practicable by the circular method, the former should be adopted.

Again, in a large limb, as high in the thigh, when the dissection of the integument would require to be carried to such an extent that the vitality of that integument would be compromised by such an extensive separation from the underlying tissues, the retention of some of the muscular tissue might be regarded as a less evil than the risk of sloughing. Here a flap amputation might be preferable to one by the other method. In the lower part of the thigh, however, and at all points where the muscles would have to be divided at a considerable distance from their superior attachments, I consider the flap amputation peculiarly inappropriate; for in such situations the injurious influence of muscular retraction will be felt in the greatest degree. In this I am advancing an opinion in direct variance with that of Dr. Ashurst, the most recent American writer on surgery, who gives a special preference to amputation by flaps, both above and below the knee; but in the absence of his reasons for the instructions he gives on this point I am unable to offer any further argument.

Before dismissing this part of my subject I desire to refer briefly to the method of amputating introduced by the late Mr. Teale, of Leeds. This method is by a long and short rectangular flap, as is well known, and is advocated mostly on the ground of the very perfect manner in which the end of the bone is covered and its protrusion rendered impossible. Other surgeons besides Mr. Teale have practiced and extolled this operation; yet I venture the opinion that a more general trial of it will lead to a reversal of the favorable views which have been formed of it, for the extravagant extent of wound surface it entails must condemn it as irrational.

The Logwood Test for Alum in Bread.

The author of this test, Mr. JOHN HORSLEY, F. C. S., thus describes it in the *American Chemist*:—

1. Make a tincture of logwood by digesting for eight hours 2 drachms of freshly-cut logwood chips in 5 ounces of methylated spirit in a wide-mouthed phial, and filter.

2. Make a saturated solution of carbonate of ammonia in distilled water.

A teaspoonful of each solution, mixed with a wineglassful of water in a white-ware dish, forms a pink-colored liquid. Bread containing alum, immersed in it for five minutes or so, and stood upon a plate to drain, will in an hour or two go blue on drying; but if no alum is present, the pink color fades away. If, on drying, a greenish tinge appears, that is an indication of copper, as carbonate of ammonia produces that color, but never a blue.

As a counter-check for iron, a piece of the moist blue-colored bread may be drenched with a few drops of glacial acetic acid, when

that containing iron is bleached of a dirty white color, but with alum a rose-pink or slight buff color will be observed.

Or it may be tried another way, thus:—Take a piece of the bread in its plain state, and having digested it in dilute acetic acid for an hour or so, press out the liquid and filter; then put in a lump of carbonate of ammonia, and, when all effervescence ceases, add to the clear liquor a few drops of solution of sulphide of potassium or sodium. If iron is present, it will be indicated by a dark color, there being no color produced with alum; but the addition of a little tincture of logwood immediately reveals it.

I might even go further, and say that, if necessary, you may quantitatively estimate the alumina thus: Take, say, ½lb. of crumb bread, digest it in a clean basin with some dilute acetic acid, and allow it to stand a few hours; then break up the mass, and pass the liquor through a glass percolator, the rim being covered with calico, repeating the percolation two or three times till the liquor is clear. Throw in a lump of carbonate of ammonia to saturation, and add tincture of logwood in excess, when, if alum is present, a dark blue color will be produced, with a flocculent blue precipitate on standing awhile. Collect this precipitate on a filter, wash it off into a dish with dilute nitric acid, and evaporate the red liquor to dryness. Collect the residue in a small Berlin crucible, and ignite it at a red heat, when a white powder will be obtained, consisting of alumina, with possibly a little lime; treat this with liquor potassæ, to dissolve out the alumina, mix with a little water, filter, and boil with carbonate of ammonia to obtain the pure alumina.

Cures of Stricture of the Urethra.

Mr. PEMBERTON says on this subject, in the Annual Address on Surgery, to the British Medical Association:—

Have we to deal with a simple stricture that has resulted from inflammation of the lining membrane of the urethral canal, or with a stricture, originally of this kind, which has been aggravated and increased in extent by ill-considered surgical proceedings?

For the first, there is a cure by simple dilatation. For the second, there properly is no cure. Once organic stricture, always organic stricture, is my belief. Whenever the lining membrane of the urethra has been injured, whether by accident, disease, or by bad surgery, the spot will contract and establish permanent stricture, and I do not believe that the materials constituting such cicatricial narrowing are ever absorbed.

If you endeavor to restore the normal calibre of the urethra under these conditions by ever so well considered a system of dilatation, my opinion is that the contraction will return sooner or later with increased vigor, the natural elasticity of the canal being gone; in other words, dilatation will not effect a cure, and never does effect a cure.

But dilatation, if it be well and properly carried out, will protect the patient against the occurrence of those diseases which, dependent on individual health and mode of life, arise either rapidly or slowly in all cases of stricture. The degree to which it is necessary to carry this may fairly allow of discussion; for I have ever before my mind the conviction that the very means made use of to effect the so-called cure may become the certain cause of the continuance, and, in many cases, of the increase, of the malady.

I think it will be admitted that the tendency to narrowing in cases of stricture differs very markedly in individuals. Some may show few signs of change during many years, others, especially those arising from the effects of laceration by direct violence, certainly, surely, and often rapidly increase. In all cases, treatment by dilatation is necessary; but I doubt myself whether it is needful always to endeavor to restore the standard of the canal to the utmost of its original extent. I believe that there are many cases which admit of being maintained at a standard short of this, depending, however, on the facility with which the contraction yields, and its rate of increase subsequently. And it must never be forgotten that when once this treatment by dilatation has been commenced—no matter how carefully or how thoroughly it may have been done—it will have to be continued, whether at the hands of the surgeon or of the patient, more or less during life.

For my own part, time being given, I do not believe that there is any stricture through which an instrument cannot be passed by a skillful surgeon. This being so, treatment by gradual dilatation follows; and in my judgment this should be by the silver catheter, as the safest, simplest, and most certain instrument in the greatest number of hands yet given to us, *bougie a boule* and *bougie olivaire* notwithstanding. If the induration be cartilaginous, non-dilatable, or if there be fistula, the treatment by external division on a grooved staff should be adopted as speedily as possible.

Entertaining this view of the permanence of the changes established in the urethra by injury or disease, I am not very likely to favor any internal severance of the lining of the canal, whether by Mr. Holt's method of so-called "splitting," or by any form of internal cutting. I believe a wound is produced just as much in the one case as in the other. I regard these methods as artificially inducing the very conditions which I lament should result from almost unavoidable causes; and I further believe that a shut-up wound on the internal face of the lining of the urethra is attended by dangers, from which an open wound on the outside face is comparatively free* I have had occasion to divide the urethra after Professor Syme's method in upwards of thirty cases. In one case only was there a fatal ending, and this from pyæmia. In no case was there a re-

* I will, with Sir H. Thompson, admit its use in narrowings at the external meatus.—*Pathology and Treatment of Stricture.* Third edition.

lapse, provided that an instrument was passed from time to time, the frequency of this being determined by individual tendency to re-contraction, once a month to once in three months being about the average; and by this means the calibre of the urethra was without difficulty maintained at its original standard. All the cases that I have seen, save one, have required this continued resort to dilatation, and will require it, in my judgment, more or less, during life. For there is no more a cure by this, than by dilatation or splitting. In the case that did not require it a fistula remained permanently in the perinæum, letting through a little urine, the general stream flowing by the urethra, which at the end of twelve years shows no disposition to contract.

If the induration of the urethra, and narrowing, be of such an extent as to preclude the idea of dealing with it by external division, I prefer to tap the bladder by the rectum. I do not feel inclined, at present, to divide from the bulb to the meatus; and this literally must be the length of an incision in many of these long-standing cases, if the entire disease is to be dealt with.

There are numbers of these inveterate cases wholly unsuited to external division; but they are eminently calculated to be dealt with by a method which deviates the course of the urine to another channel, in order that rest may heal the fistulæ, and absorb much of that adventitious material blocking up the natural urethra, which can then readily be found, and have a standard established almost without resort to dilatation.

I frankly say that I do not believe that either internal or external division of any urethra will cause the healing of fistulæ in the groin, buttock, and perinæum, where a man passes his urine, as it has been graphically described, like a watering-pot.

Surely, relief by the rectum will stand comparison with all the manœuvres that have been suggested from the days of Hunter to Grainger, and from Grainger, who, by-the-bye, belonged to us here, to Gouley and Wheelhouse. I cannot conceive why a patient is to sustain—sometimes for hours together—the distress belonging to hopeless attempts made to trace, in that stage of the disease, an impracticable canal, when the chief cause of the malady—the flow of urine—can be reached and diverted in a moment. Since Mr. Cock published his views (*Medico-Chirurgical Transactions*, volume xxxv, p. 153), now just twenty years ago, I have had many opportunities of seeing the results of this proceeding.

I am able confidently to state that it is wholly free from danger. Indeed, I can scarcely conceive death following as a direct result of the operation. So little fear of the proceeding had one of my patients that he has been tapped at least six times for the relief of fleeting attacks of retention, dependent on a rapidly distended bladder, unable to empty itself in the presence of long-standing organic stricture. I have seen him almost within a day or two afterwards as if nothing had occurred. Further no fistula remains, for the opening in the rectum invariably closes after a few weeks.

I have left in the silver canula for three weeks, and have not found inconvenience from its presence; indeed, it appears to me that one of the greatest arguments in favor of its adoption exists in the fact of the position of the canula, which, while certainly securing the emptying of the bladder, is wholly removed from the urethra. I am strongly myself of opinion that many urinary cases terminate fatally from urethral irritation, set going and kept up by an instrument retained in the canal in its length.

Some persons are very tolerant of tied-in catheters, whilst others, dependent on a certain idiosyncrasy, cannot sustain with impunity the simple introduction of an instrument. I saw a case in a young man which all but ended fatally from epileptic convulsions, induced by a first catheter; whilst the single introduction of a lithotrite in a man of 77, to measure a large smooth stone that had been carried with impunity for years, set up such an attack of cystitis that death ensued. I was very much impressed by a case in which a man, suffering from complete paralysis from the bladder downwards, owing to concussion of the spine, had a silver catheter tied in his bladder. He appeared sinking fast, and the most profound irritation of the bladder was established. I directed the urine to be drawn off every eight hours, and he began from that moment to amend, and ultimately recovered. Here, doubtless, the true explanation lay not in idiosyncrasy, but in the fact of the existence of disease from the injury. You may leave an instrument in the bladder for years, from the perinæum, but you cannot do this with impunity and traverse the length of the urethra. Morbid sympathies become excited in connection with the urethra, which are not produced by the introduction of instruments into other mucous channels.

In what I have said, I have urged the adoption of tapping by the rectum, as affording assured relief to the most inveterate forms of stricture. And in considering the treatment of this disease, I have hitherto limited my observations to cases of stricture of the urethra *per se*, not to those complicated by retention of urine. I must equally urge it, however, as the remedy most reasonable for almost every form of retention. It is the absolute cure of spasmodic stricture; and if, in any given case arising from this cause, after one good effort has been made to obtain relief by ordinary means, there is no success, it should be carried into effect. If retention be present with an impermeable urethra from organic stricture, a double necessity supports its selection, whilst I have yet to learn that it is inadmissible in the retention of old people from enlarged prostate. I know that it can be accomplished in these cases, but of course not so readily as if the rectum

had only its ordinary contents; and I am quite satisfied that far less irritation would be produced in the majority of these diseases, where death so often directly results from the effects of instrumental measures, by the presence, at the most depending part of the bladder, of a harmless tube, calculated to secure the removal of all urine secreted, and thus master that inevitable decomposition which is not overcome by any other method in use, for the simple reason that one and all fail to empty the bladder. If the membranous urethra bulge behind a stricture, or if any abscess opened in the perinæum suggest a ready path to the bladder, by all means let a female catheter effect, through the perinæum, what otherwise, I maintain, can be accomplished by the rectum.

Some years ago I asked the question, "Can the urethral canal be permanently restored whenever any complete and considerable portion of its length has been entirely destroyed?" I believe the answer must yet be "No." I had then a boy of sixteen, with at least two inches completely destroyed by burning; and, believing this, I established him with a silver perinæal tube, through which he now (aged 27) passes his urine without trouble; but there is nothing in the growth of the parts that tempts me to interfere, for I know the whole circle of the canal must be gone.

I think, however, that if only a streak of mucous membrane lingers about the part, an efficient connection can be re-established even after the lapse of many years.

I saw in the early part of this year a patient, aged 30, who had sustained, eighteen years previously, such a laceration, that two inches below the meatus was a fistulous opening into the urethra, three-quarters of an inch long. The canal was pervious from the meatus to about one inch above the bulb, where was a second small fistula; then, the canal was obliterated for an inch, and a third fistula, placed just at the commencement of the membranous division, gave exit to all his urine. For eighteen years, then, the urethra from this spot had been unused. I first closed the penile fistula, paring the edges, which looked beautifully in apposition for some days, and then came apart as usual. But by clipping the penis with a self-acting spring, on the principle of the *serre fine*, the edges were admirably united. Then I laid the lower fistula into one, dividing all the hard textures between them, and passed an eight catheter, and for forty-eight hours tied it in the bladder. After this I passed a nine daily. The patient learned to pass it in a week himself; and at this time the canal is in excellent order, with the introduction once a week. Now, I do not think the roof of the urethra was destroyed here, and hence the reason of a success which I did not expect.

In reference to the repair of penile and scrotal fistulæ, I would remark that they can alone be treated satisfactorily by the urine being drained through the rectum, or, as here, through the perinæum. Even then, union by first intention is a myth; but union can be obtained by keeping the granulating edges together by some artificial means, at the same time that vivacity is maintained in them by the use of the acetum lyttæ.

Is Consumption Contagious?

Dr. Richard Payne Cotton, F. R. C. P., Senior Physician to the Hospital for Consumption, etc., Brompton, says, in the *British Medical Journal*:—

There is no question in connection with phthisis of more practical interest and importance than that of contagion; and there is none other perhaps about which there exists so great a diversity of opinion. It is well known that throughout Italy consumption is classed not only by the public, but also by most physicians, amongst the diseases propagated by contagion; and so greatly dreaded is this supposed character of the disease, that in many parts of Italy the clothes of consumptives are quite as carefully subjected either to destruction or disinfection, as if they had belonged to patients who had been affected with small-pox or scarlet fever. In Germany, the opinions on contagion as regards phthisis are divided; and in France there is an equal want of unanimity upon the point. In our own country, both the medical and general opinions upon the subject are very far from being settled; and while some are quite Italian in their views, others—and probably the great majority—believe quite as fully in the non-contagiousness of the disease. We may possibly explain this wide difference of opinion by the recollection that phthisis, notwithstanding all we know of it, is nevertheless so obscure a malady, and arises under such a multitude of very different and apparently opposite conditions, that it must of necessity be frequently associated with circumstances not merely suspicious, but to some minds sufficiently conclusive of a contagious origin.

If the contagion doctrine be correct, not only must it completely revolutionize both the medical and social treatment of phthisis, by rendering the poor consumptive sufferer a being quite as much to be dreaded as was the leper of old, but it must at once crush every hope of our lessening the ravages of so terrible a scourge, by the manifest impossibility of our ever being able to "stamp out" so universally prevalent a morbid element as tubercular poison. If phthisis be contagious, it is obvious that every consumption hospital must be nothing less than a pest-house; and, instead of lessening disease and suffering, must tend only to their aggravation.

Numerous as have been the believers in the contagiousness of phthisis, no one had fully developed and openly advocated such a doctrine until Dr. William Budd published his startling, but clearly expressed and evidently well-matured views upon the subject. In this paper Dr. Budd expressed his con-

viction that consumption is a zymotic disease of specific and highly contagious nature, closely allied in such respect to the most contagious diseases with which we are acquainted, viz., scarlatina, typhus, and syphilis, the tubercular material itself being the specific and morbid poison in which the malady originates, and by which it is disseminated through society.

Notwithstanding the high authority under which this view of phthisis is propounded, I most unhesitatingly declare my conviction of its fallacy. Consumption I believe to be a purely constitutional disease, which may be either inherited or acquired, but which, from its very nature, is incapable of being conveyed from one person to another in the ordinary sense of the word contagion. I have, indeed, never met with a case of pulmonary phthisis, however apparently due to a contagious origin, which could not be much more easily and rationally accounted for by generally recognized causes, than by the doctrine of specific and contagious influences. It is quite true, that persons previously in fair health are sometimes seen to succumb to phthisis after having attended the last illness of some consumptive relative or friend; but when it is remembered that anything which lowers the physical and nervous powers and depresses the general health is of itself sufficient either to originate phthisis or to develop some hitherto latent tendency to it, we have, I consider, a sufficient explanation of very many such cases, and might even wonder that they are not more frequently happening. In all instances of phthisis originating under such circumstances, it has long been my habit to make, as far as possible, a complete inquiry into their general, and more especially their family, histories; and I have invariably been led to the conclusion that the long nursing and the close connection with the disease was at most the *exciting* cause of its subsequent development, the predisposing one having been, for the most part, sufficiently apparent, either in a previously existing hereditary taint, or in some other cause far removed from the idea of contagion. If consumption were "caught" like a zymotic disease, how few in comparison must be the instances of escape to those of infection after contact with it; whilst it must be in the experience of us all that cases, arising even under the most suspicious circumstances as regards contagion, are by no means common, and bear a very small proportion to those in which, after the closest contact with the malady, no ill effects have resulted.

It must nevertheless be admitted that cases now and then occur in which consumption has become developed in the widowers or widows of those who have died of the disease, and under circumstances apparently favoring the doctrine of contagion. I have met with several such instances; but from notes taken at the time, I find the very curious fact that they have chiefly occurred amongst women. Such cases, however, do not, in my opinion, give the least support to the doctrine of contagion, but may be explained in a very different way. The union of husband and wife is not only a religious and social, but also a *physiological* one, as may be easily shown by our daily experience. It has often been remarked, for example, that after a variable period of married intercourse, the one person is seen to resemble the other, not merely in manner and habit, but in feature and expression. The offspring, too, of second marriages has been frequently known to resemble, both in feature and character, the husband of the previous union. So well established, indeed, is this corresponding physiological fact with respect to the lower animals, that it has to be ever borne in mind in their breeding and rearing. If, therefore, certain natural and healthy peculiarities can be imparted from husband to wife, or *vice versa*, there is every reason for concluding that morbid diseases, peculiarities and tendencies, may equally be imparted. But there is another and a less mystical way in which it may fairly be concluded that phthisis may be conveyed from husband to wife. A phthisical father may communicate to the *fœtus in utero* a consumptive taint, which may thus be indirectly transmitted to the mother, just as we well know is often the case with secondary syphilis. And it may be due to this circumstance that, as I have already observed, phthisis arising under such apparently contagious conditions is much more frequently met with in women than in men. I believe, therefore, that in one or other of these ways —either by a transmission through the offspring, or by a mysterious and inexplicable connection between husband and wife— phthisis may sometimes be developed in either of them; and that we need not resort to zymotic influences in explanation of such an occurrence.

Upon the question of contagion, however, practical evidence is of far more value than anything speculative; and as a great experiment upon the zymotic character of phthisis has long been going on at the Consumption Hospital, I shall briefly give the results.

The Consumption Hospital was opened in the year 1846, with ninety beds. Ten years later it was completed; and since that time two hundred beds have been constantly occupied. We have lost, during this long period, only one nurse from phthisis; and this was a poor creature whose husband had deserted her, and who had long endured, from other causes also, considerable mental anxiety and physical exhaustion. On the other hand, the services of the nurses generally have been unusually prolonged; and I can myself testify to their general health being, as a rule, remarkably good. Of those *now resident*, two have been at duty in the hospital seventeen years; one has resided thirteen years; one, eleven years; two, ten years; two, nine years; one, seven years; one, four years; two, three years; and four, two years. The two oldest nurses have lately died of old age and general decay, after hav-

ing long been superannuated; each of these had resided in the hospital for upwards of twenty years.

Of the gallery maids, whose duty it is to be much within the wards in sweeping and scrubbing the floors, only one has been known to have been affected with phthisis; whilst it is obvious that, during so long a period, the numbers of persons thus employed must have been considerable.

Our engineer has seen eighteen years' duty within the hospital, and he is now in good health.

We have had, at different times, three attendants in the *post-mortem* room. The first of these is still living, but in infirm health, the result of intemperance; the second left with spinal disease; the third has been in his office for nearly four years, and is in good health.

Of the dispensers, one who kept to his post for above ten years is living and well; three who have held office in the dispensary since the year 1867 are also well; and the present senior dispenser has been with us for ten years. Many others have been in this department since the opening of the hospital, but only one has been known to have been consumptive.

The resident clinical assistants, of whom we are able to obtain reliable information, amount to seventy-eight in number. Three of these are said to be phthisical; but only one has been known to have died of phthisis. This gentleman I knew intimately; he was always of consumptive appearance, and one of his sisters had died of phthisis.

Our resident medical officer, Mr. Edwards, to whom I am indebted for the statistics I am now giving, has held office for more than twenty-one years; and all those who know him can testify both to his continued health and his undiminished energy and usefulness. The present matron has also been in her office for more than twenty-one years, during which long period her health has been excellent.

The present secretary has been at his post for fifteen years; and his only predecessor, who is still alive and well, had held the same office for sixteen years. The assistant secretary has been at his duties within the hospital for eighteen years; and a clerk—whose office it is to register the out-patients, and who must, on that account, be exposed to an unusually great extent to phthisical contagion, did such exist—has been at his work for five years. I am happy to add that all of the above are now in excellent health.

The present chaplain has been with us for twenty-two years; and his two predecessors are still living. Happily all of them are well.

Of the staff of physicians and assistant physicians—nineteen in number—one only has been affected with phthisis; and he was a young man of delicate and decidedly consumptive aspect. The period of office which some of us have had is unusually long. Of the present physicians, two have been upon the staff twenty-four years each; one for seventeen years; one for thirteen years; one for nine years; and one for five years. The late senior physician, who resigned only three years ago, had been attached to the hospital, and in constant work there, from its very foundation. Two of the former physicians who resigned their appointments, and subsequently died of disease quite distinct from phthisis, had held office in the hospital for fifteen and nineteen years respectively.

I have elsewhere given my experience of the statistics of phthisis, in one of our chief metropolitan hospitals; and the subsequent observation which I have had only tends to convince me the more that the evidence in this respect is greatly in favor of the Hospital for Consumption.

With the above facts before us, must it not appear to all believers in the doctrine of phthisis originating in a special and contagious poison, that a residence in the Consumption Hospital, and long-continued working in its wards, is a very good way indeed *not to catch the disease?*

On the Modern Art of Tinting Opacities of the Cornea.

Dr. CHARLES BELL TAYLOR, F. R. C. S. E., Nottingham, says, in the *British Medical Journal*:—

Extensive leucomata and dense opacities of the cornea have long been considered among the opprobria of surgery; we could not remove them; they were always a source of embarrassment to the surgeon, and, especially in the case of women and young persons, a serious trouble to the patient, so much so that I am convinced that patients suffering from this cosmetic defect and applying for relief cared more for the removal of the deformity than for the restoration of the partially intercepted sight. Such being the case, we hail with gratitude, as a most important addition to modern ophthalmic surgery, M. Wecker's reintroduction and perfection of an ancient method of tinting away these unsightly defects.

The operation, which, as a rule, causes very little pain or irritation, is best performed with a number of the finest needles firmly bound with the points on a level around a handle, such as a penholder, or a large needle which has been grooved for the purpose by Messrs. Weiss may be substituted with advantage in certain cases. The substance which M. Wecker recommends for tinting is Indian ink; but I have also employed sepia, ultramarine, and other colors with advantage, and when an immediate and deeply colored effect has been desirable, a combination of lamp-black with Indian ink, and a solution of nitrate of silver. The patient may either recline or be seated in a chair, and it is well to separate the iris with a speculum and steady the globe with a pair of ordinary forceps, taking a firm grasp of the conjunctiva. The needles are then dipped in one or other of the solutions in question, which should be made as thick as

possible, and the superficial layers of the cicatrix are rapidly punctured in an oblique direction, and layers of the solution applied just as in ordinary tattooing, until the white speck is changed from a most apparent deformity into a black surface scarcely visible; a fresh layer of the substance is then applied over the tattooed cicatrix, the patient is directed to keep his eyes open, so as to let it dry on and remain as long as possible, and he may at once go about his usual avocations.

It is important not to close the eye, and to prevent, as far as possible, the washing away of the pigment by the tears; this is best accomplished by enveloping the operator's fingers with a silk handkerchief, so as to mop up the secretion, and afterwards by the avoidance of winking on the part of the patient. M. Wecker is content with ten or fifteen punctures a time, and requires from his patients four or five sittings. I have, however, usually completed the operation at once, and made any little addition that might appear necessary some weeks later; the slightest specks, such as are left after phlyctenular conjunctivitis and small ulcers of the cornea, are easily banished by one or two pricks of the needle; and when the whole eye has been opaque, very unsightly, and sight completely abolished, I have very advantageously substituted extirpation of the globe, or the superimposition of an artificial eye, by tattooing a round central pupil, so as to restore to a remarkable and most charming degree the natural appearance of the globe. Not only is deformity removed by this slight operation, but patients generally tell us their sight is improved, a fact due, no doubt, to the circumstance that a black speck is much less dazzling than a white one.

In cases of large cicatrices, I generally make an artificial pupil first, and tint the opacity afterwards; and when this is carefully done, it is difficult to distinguish the black speck from the neighboring artificial pupil. I have no doubt that this little operation will also be found of service in cases where considerable dazzling follows the removal of a portion of iris, either *per se*, or when the operation has constituted a part of the operation of extraction for cataract; as by tattooing the cornea an invisible opacity may be occasioned which will constitute a permanent shade, and shut out the light to any required extent; soft cicatrices are readily colored, but old, hard, and incrusted ones are more difficult of treatment. In these cases, the nitrate of silver and lamp-black are of service; no doubt, also, lead, sulphur, charcoal, gunpowder, and other ingredients will come to be employed in time. In some cases, the coloration is not very permanent, but it may always be repeated; and even if the perfect blackness do not remain, a greyish semi-transparent coloration takes its place, which looks very like cornea, and it is infinitely preferable to the original deformity.

It is well to commence the tattoo at the lowest surface to be operated on, in order that the operator's sight may not be obscured by an overflow of the liquid. I shall conclude by quoting a case in which this addition to our armamentarium enabled me to render a real service to a young lady who was suffering not only from loss of sight, but also from a most embarrassing deformity.

Extra-Uterine Pregnancy.

Dr. W. A. MATTHEWS, M. D., of Fort Valley, Georgia, reports the following case in the Atlanta *Medical and Surgical Journal:*

Sylvia, a colored woman, aged about twenty-six years, the mother of two children, the youngest six years old, presented symptoms of pregnancy in July last, and the latter part of September was noticeably enlarged. About the 1st of October, being greatly shocked by witnessing the stabbing of a man on the plantation where she was living, she commenced reducing in size, and all indications of pregnancy disappeared.

In November, indications of pregnancy again existed; about the 25th of the month she was attacked with symptoms threatening abortion, for which laudanum was given, and relief afforded. During the months of December and January she had frequent returns of similar attacks, and came under the care of Dr. W. L. Jones, an intelligent practitioner of Crawford county, who was repeatedly called to see her when thus troubled.

About the 28th of January I visited Sylvia the first time; learned she had been in great pain, seemingly "hard labor," but was nearly easy when I arrived. On examination I found the os firmly closed, and great tenderness. On placing my hand over the pubic region I detected evident enlargement, such as indicated at least her fourth month of utero-gestation, and extreme soreness. The enlargement, she said, commenced in the left side. On interrogating the woman, she informed me that she first felt the movement of the fœtus about Christmas, and frequently since. The tenderness over the inter-uterine region being so great, I prescribed a blister, which was followed by prompt relief. She had tolerable health until about the 1st of March, pains occasionally recurring, sometimes ceasing; at other times anodynes were given.

I heard nothing from the case, directly, until the 17th day of June, when I received a note from Dr. Jones requesting me to see the woman with him. I went immediately as requested. Found her quiet, all pains having ceased. The doctor informed me he found her, on his arrival, in much pain, indicating very active labor, though no impression whatever had been made upon the os uteri, which he could just touch, it being very high up. By request I examined her, and found her condition as represented, os closed perfectly, and seem-

ingly *unusually* hard. Enjoining quietude, we left her.

On the —— day of June I was again summoned to see the woman (Dr. Jones being sick), and it not being convenient for me to see her, I requested my friend and partner, Dr. W. J. Greene, to visit her. Dr. Greene found the pains to have ceased, which had been *very* violent, and the woman perfectly quiet. The doctor instituted an examination; thought he passed his finger into the cavity of the uterus, and expressed the opinion that it (the womb) contained nothing, which opinion was correct, as the sequel proved.

Three days thereafter I was again sent for, the pains having returned with unusual violence. I found her quiet, all pains having ceased. Wishing to see the patient when under the influence of uterine contractions, I remained all night, and about two o'clock in the morning was notified the pains had returned. I went immediately to her house, and during a most violent paroxysm of pain examined the os, but found no impression was made by the contraction, although so strong. I also examined the abdomen during a paroxysm, which presented a rather peculiar appearance, being flattened on each side, and very prominent along the median line. My examinations, with the history given by Sylvia of her condition during her last pregnancy, etc., induced me to believe that there was probably induration, from some cause, of the *inner* os, preventing dilatation, as I thought I could distinctly detect the external os to be open and soft. The account given by Sylvia, above referred to, was to the effect that during her pregnancy with her last child she was, as she believed, in a similar condition, suffered much, and was for a long time under medical treatment; that on one occasion several physicians met in consultation on her case, and determined to open her abdomen; that while making preparations for the operation, one of the physicians proposed to defer it for a time, which was agreed to; and in four weeks, after an unusually hard labor of about fourteen hours, she was delivered of her now living child.

Three days subsequent to my last visit, with Drs. Greene and Jones, I again saw Sylvia. Found her in a high fever, with violent pains in her head, having had several convulsions. Bled her, and applied cold water to the head, which afforded relief. No change in the condition of the uterus. We prescribed rest, and small doses of tartrate of antimony to keep down excitement and cause relaxation.

Dr. Jones saw the case every day or two. There was no material change nor return of pains until the 24th of June, about one week subsequent to my last visit, when she was again attacked with pains, the last of which, as I was informed by an intelligent lady who was present, continued forty minutes, without any *seeming* relaxation. During this pain a noise was distinctly heard by all present, as of "something bursting" in the abdomen; felt also by the sufferer. The pains ceased, and she had no more. Within a few hours she commenced complaining of abdominal tenderness, which increased rapidly until the time of her death, four days thereafter.

About eighteen hours after her death, in presence of Drs. Greene and Jones, I opened the abdomen carefully. A large quantity of bloody water gushed out, with some coagula. The fœtus, a *very* plump, well-developed female child, was found lying rather obliquely with its face to the right side, in contact with the liver, its breech to the symphysis, the umbilical cord passing over the body. After severing the cord and removing the fœtus, I traced the cord to the placenta, which was found in the side near the left ovary, attached to the Fallopian tube and adjacent parts. The Fallopian tube seemed to have been lacerated obliquely, and presented a very dark appearance, as did also the omentum. The uterus was then examined and removed, and found to be empty, as Dr. Greene supposed. It was about as large as the head of a small fœtus, and presented a rather peculiar, shapeless appearance, of a dull, whitish color.

Researches on Quinine and Iron.

We are indebted, says the *British Medical Journal*, to *L' Union Medicale* for the knowledge of a communication lately made by M. C. Robin, in the name of M. Rabuteau, to the Academy of Sciences. It treats of the investigations of the physiological properties of quinic acid, and the reduction of perchloride of iron in the organism. Quinic acid, which is solid, and tastes like vegetable acids, such as tartaric and citric, exists in a remarkable quantity in bark, in which it is said to be combined with quinine, cinchonine, and lime. The author has prepared quinate of soda and quinate of potassa by disolving quinic acid in the bicarbonates of these two bases, and he has made many experiments with these two salts, which are neutral in reaction, deliquescent, and tasteless. He injected into the veins of a dog five grammes of quinate of soda dissolved in forty grammes of water. The only result of this operation was marked constipation. The urine became neutral, and even slightly alkaline, although previously acid. M. Rabuteau took himself two grammes of the quinate of potassa in fifty grammes of water. The urine did not become alkaline, doubtless because the salt was too much diluted, but its acidity was diminished. A watery solution of quinic acid introduced into the stomach does not produce any particular result. From this acid can be prepared a lemonade as agreeable as the tartaric and citric lemonades. These researches show that quinic acid is harmless, and also that it acts almost like all the ordinary vegetable acids; that is to say, it is consumed in the organism, the alkaline quinates being trans-

formed into bicarbonates, which render the urine alkaline when administered in sufficient doses; for example, five or six grammes at least in the day. From the quinate of soda producing constipation after its injection into the blood, it is concluded that, if introduced into the digestive tube in sufficient quantity, it would produce purgative effects, according to the general rule that saline purgatives constipate when they are injected into the blood. The alkaline quinates being destitute of taste, it might be thought that the quinate of quinine would be less sapid than the sulphates. This salt, however, is bitter, like all the other salts of quinine. According to the experiments of M. Rabuteau, the perchloride of iron is reduced by contact with albuminous and various organic substances. It follows from this that, when ferruginous waters containing sesquioxide of iron are taken, for example, in water in which a red-hot iron has been cooled, perchloride of iron is formed by the hydrochloric acid of the gastric juice, and is transformed into protochloride of iron. When perchloride of iron is injected into a varicose vein to obliterate it, it forms a cord, owing to the coagulation of blood produced by this salt; but this cord disappears gradually, for the perchloride is changed into the protochloride, which has not the power of coagulating the blood, but even prevents coagulation, as has been shown by direct injection of it into the veins of animals.

Connection Between Pulmonary Hemorrhage and Phthisis.

In a paper contributed by Dr. JULIUS SOMMERBRODT, of Breslau, to the June number of *Virchow's Archives*, the question whether the extravasation of blood into the air-cells of the lungs is ever the cause of consumption is very fully discussed. Numerous experiments were made by injecting blood taken from their own bodies into the trachæ of dogs; the animals being killed at periods of time varying from one hour to twelve days after the operation. In those soonest killed the blood was found to have penetrated into different parts of the lungs, but was accumulated in greatest quantity near the roots. At the end of the first day the injected patch could be readily distinguished from the other portions of the lung by a well-defined difference in color, which, however, became fainter on the third day, and generally ceased to exist on the eighth day. In no case were fibrinous coagula found obstructing the bronchial tubes. In dogs killed in from two to three hours after the experiment, the microscope showed the presence in the alveoli, containing blood, of some pale cells, two or three times as large as the blood-corpuscles, and having a nucleus and opaque somewhat granular contents. Twenty-four hours later, these cells, which varied in size from 0.006 to 0.015 mm., had become more numerous; their nucleus was less distinct, and their contents were more opaque. The cells continued to increase in number until the fifth day, when they also attained their maximum size (0.021 to 0.024 mm.) Occasionally Dr. Sommerbrodt has discovered within them corpuscular elements, which he has no doubt are blood-corpuscles, not only because they resemble the corpuscles, lying free in the alveoli, but also because they are not stained by carmine as are the nucleus and nucleolus. He thinks, therefore, that they have penetrated into these cells. In animals killed after the seventh day, the cells were found to have become less round, to have a tendency to become crenated and more opaque, and to decrease in numbers. Dr. Sommerbrodt has no doubt that these cells take their origin from the walls of the alveoli, and has been able not only to trace the gradations from the healthy cell to those just described, but also to detect the points from which they have been thrown off. These appearances he attributes to catarrhal pneumonia, and he therefore asserts that blood is capable of exciting this form of inflammation; but, having never been able to discover thrombi in the minute bronchial tubes, he rejects the explanation of Niemeyer, believing that blood exercises a directly irritating effect upon the alveoli.

Alleged Death from Nitrous Oxide.

The alleged death of Mrs. O'Shaughnessy, in Brooklyn, N. Y., from nitrous oxide, is reviewed by Mr. COLTON, in the *American Journal of Dental Science*, for June, with the following results:—

There are three facts with this death to be noted:

1st. The lady had her teeth extracted while *not* under the influence, and during the operation fainted.

2d. The nervous system received more or less of a shock from the pain of extraction.

3d. The lungs were found in a state of asphyxia.

There are three answers to these facts:

1st. Had the lady properly inhaled the gas *she could not have fainted*, because the gas, instead of arresting, increases the circulation.

2d. She would have experienced no pain, and, of course, no shock to the system.

3d. There would have been no asphyxia, as the gas, containing as it does more oxygen than the air, rapidly oxygenizes the blood, and *prevents* asphyxia or congestion. The ablest medical authorities on nitrous oxide recommend that when asphyxia is threatened from any cause, the gas should be administered, as the quickest and most effectual remedy. Indeed, one of the most distinguished professors of chemistry in our city maintains that a law should be passed compelling dentists and surgeons, when administering *chloroform*, to have some nitrous oxide gas on hand, to restore the patient in case asphyxia or congestion is threatened.

"I do not mean to intimate that caution and care should not be exercised to make

pure gas, and to administer it properly; but there was no evidence presented in this case to show that Dr. Newbrough was at fault in these respects.

"In view of these facts, I cannot conceive how the jury could form an 'opinion' that this 'death from asphyxia' was 'induced by the inhalation of gas administered.' Now, in point of fact, the amount of gas previously inhaled, according to all the testimony on the subject, was not sufficient to produce any appreciable effect on the system; consequently there was no *evidence* to justify the 'opinion' arrived at by the jury."

Character of Pure Musk.

In the *Vierteljahrschrift fur Pharmacie*, CHR. KUNRZ states that experienced druggists have changed their view regarding the superiority of the musk in the musk bag, as compared with that sold out of it; he declares himself in favor of that assumption, for the reason that far more numerous modes of adulteration are not only liable, but actually recognized as being practiced in the first instance, than the last would permit without showing more or less the signs of a fraudulent nature. He describes in detail the reactions and the properties of a genuine musk, as regarded by others, as well as his own results. The observations during his comparative investigation induce him to deplore the frequent unreliabilities of statements concerning the exactness of even important drugs like musk; a fact which he ascribes quite properly to the wide-spread practice of copying previous statements for generations without any basis for a judicious selection on the part of the compiler.

Dry Gangrene following the Use of Carbolic Acid.

M. PONCET, an *interne* of the Lyons Hospitals, records in the *Bulletin de Therapeutique* (July 30th) a case which he considers rightly to convey a caution against the rash use of carbolic acid by non-professional persons. A girl, aged 13, had her fore-finger injured by a splinter of wood, which penetrated under the nail. The end of the finger was dipped in a bottle of solution of carbolic acid, and a compress soaked in the acid was applied. The next day the part had a greyish color, and was insensible; and when M. Ollier first saw her, a week afterwards, mortification had extended as far as the upper third of the second phalanx, and a line of demarcation was being formed. The finger assumed a mummified appearance, and separated on the thirty-fifth day. This occurrence suggested to M. Ollier the possibility of amputating fingers and toes by means of the application of carbolic acid; and experiments were accordingly made by M. Viennois on rabbits and fowls. The results showed that the application of carbolic acid was liable to be followed by toxic symptoms; but that these might be prevented by the application of a ligature. M. Ollier endeavored to put the plan into execution in a case of disease of the great toe, by plunging it for some minutes in a concentrated solution of carbolic acid; the thickness of the epidermis, however, prevented mortification from being produced. M. Poncet records also the case of a man, aged 23, who, having wounded the end of one of his fingers, applied for ten days charpie impregnated with carbolic acid, and afterwards poultices. When he applied to M. Ollier, two months after the accident, the terminal phalanx was in a state of dry gangrene, and was removed a few days afterwards.

Three Cases of Epilepsy.

Dr. L. P. YANDELL, Jr., reported to the College of Physicians and Surgeons the following cases, the first of which possesses unusual interest as having resisted the action of the bromide of potassium alone, but was rapidly benefited and finally relieved by the addition of the sulphate of atropia to the prescription.

Case I. A girl, aged thirteen years, small, delicate, precocious, has had since early childhood excruciating headaches, attended by vomiting, double vision, and sometimes loss of consciousness and delirium, and always sending her to bed for a day or more. The seizures were sometimes excited by undue heat or cold, excesses in eating or exercise, malarial trouble or menstrual derangement. She had been treated by bromide of potassium in full doses for many months without relief. When patient came under Dr. Y.'s care he gave her from twenty to sixty grains of the bromide three times daily, and one-hundredth of a grain of the sulphate of atropia night and morning. The attacks soon became less frequent and less severe, and in seven months she seemed rid of them altogether. She was directed, however, to continue the medicine for twelve months more. The patient has of late had several attacks of genuine hemicrania, which were entirely rebellious to the bromide and atropia, but which promptly disappeared under quinine.

Case II. A young farmer, whose father, a confirmed epileptic, died hemiplegic and insane, had many convulsions during infancy and early childhood. Just after reaching puberty he had, while working in the hot sun, his first epileptic seizure. Has had atracks for four years pretty regularly every month, sometimes oftener. A course of bromide of potassium and sulphate of atropia, with strict attention to all his habits of life, have now averted a paroxysm for upwards of a year. He takes the medicines still, though in diminished doses.

Case III. A Swede, aged twenty-seven, an epileptic since early youth, having attacks almost every month, was usually warned of the approach of the seizures by a distinct aura beginning in one hand. He was not unfrequently able to avert the attack by clinching the fist of this side with all his force, or laying violent hold on some hard substance, as a table or chair. The same

treatment pursued in the previous cases materially improved the patient, and gave decided promise of curing him, when he left the hospital, and has not since been heard from. Dr. Y. has come to regard epilepsy as curable in the large majority of cases by the bromide of potassium and sulphate of atropia.

Reviews and Book Notices.

NOTES ON BOOKS.

An annual compend of medical science has been published in Barcelona, under the title of *El Relampago Medico: Anuario de Medicina, Cirugia, Farmacia, y Ciencias Naturales.* It is edited by Dr. Marsillach y Parera, physician to the Santa Cruz Hospital, in the above-named city. The object of the work is the same as that of the Retrospects published in this country, that of affording to the profession an epitome of the latest essays on medical science and practice. The selections are made from various sources, British, French, German, Spanish, and American.

——Among the more recent French medical publications we note a choice collection of ancient syphilographers, especially the works of Jean de Vigo. It is entitled:—*Le Mal Francais, 1514; traduction et commentaires par Alfred Fournier, professeur agrege de la Faculte de medecine de Paris.*

——Translations of Prof. F. Rizzoli's *Clinique Chirurgicale*, and of Prof. Carl Binz' work on Materia Medica and Therapeutics, the former from the Italian, the latter from the German, are also announced as ready.

——Dr. Felix von Niemeyer's large and valuable library has, since his death, been bought by Albert Moser, of Tubingen, a bookseller, who has carefully catalogued it, classifying it under the same headings as Niemeyer's *Practice*. The catalogue contains 200 pages, and can be obtained from L. W. Schmidt, German bookseller, 24 Barclay street, New York City.

BOOK NOTICES.

On the Functional Diseases of the Renal, Urinary, and Reproductive Organs, with a General Review of Urinary Pathology. By D. Campbell Black, M. D., L. R. C. S. Ed'n., etc. Philadelphia: Lindsay & Blakiston, 1872. 1 vol., cloth, 8vo, pp. 300. Price $2,50.

The earlier half of this work is taken up with a study of the secretion of urine, with special reference to suppression and retention; the latter half with nocturnal enuresis and spermatic incontinence, spermatorrhea, or, as the author calls it, spermatorrhagia. On the last mentioned topic he is quite expressive, attacking those who disagree with him with unnecessary and absurd bitterness. For instance, page 188, he denounces the theory of the absorption of semen, and adds: "Ten chances to one, he who advocates it is either a fool or an impostor." Such language is grossly unbecoming a scientific writer. On the next page he says that the belief that a single man can by chastity and purity overcome his natural tendency to illicit copulation is "the milk-and-water philosophy of a very weak section of humanity."

It is but consistent with such views for him to deny that religious training is an aid to continence. This he calls "unmitigated cant, of the most detestable description," p. 253; and, indeed, he bursts out into quite magnificent rhetorical exclamation when he contemplates the folly of those who would attempt to do away with the traffic in human life and soul. He cries (p. 251):—

"Suppress prostitution! Turn the Mississippi! Pluck Jupiter from the studded vault of heaven! The canker is in society. Prostitution is an appendage of an advanced civilization," etc.

While, of course, very severe on the "indecencies" of other writers, Dr. Black does not stick at a trifle himself, as witness the piquant anecdote of the Greek courtesan, Archidice, narrated on page 187, which has not the slightest value as an illustration of any scientific fact. His lordly contempt, expressed in the Preface, of what critics may say about his book, possibly arises from some premonition of what their verdict would be likely to be.

We had marked several other passages which deserve to be pointed out as quite as feeble in argument as they are bold in assertion; but we have said enough to show we do not place the book very high on the list of authorities. Nevertheless, the earlier chapters have a good many points of practical utility in them, and in a large measure redeem the book.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SEPT. 28, 1872.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical*, *brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

FORCE, LIFE, AND DEITY.

The criticisms we ventured upon, a month or so ago, in these pages, on the theory of the correlation and conservation of force, pointing out what we conceived to be some dubious or at least obscure points in that favorite doctrine of the day, called down upon us some severe remarks from a correspondent. We did not publish them, as the author did not intend them for publication; but a careful reading failed to show us wherein we had erred.

On the contrary, we are sure that there is too exclusive attention given by this correspondent, as well as very many others with him, to the merely material and superficial view of the relation of motion to force, and force to mind. Our own position, and this error which we here again advert to, are so admirably summed up by the venerable and distinguished Dr. CARPENTER, in his recent address as President of the British Association for the Advancement of Science, that we shall make an abstract of part of it.

After explaining the distinctive features of the two schools of thought which attribute our primary beliefs respectively to intuition and experience, and pointing out how they might be harmonized by the theory of inheritance, an opinion in which he said Mr. MILL, to a great extent, concurred, having dealt at some detail with our notions of matter and space as sense-perceptions, the President passed to the consideration of the general conceptions to which experience gives rise—the laws of nature—in the following terms:—

"Now since it is universally admitted that our notion of the external world would be not only incomplete, but erroneous, if our visual perceptions were not supplemented by our tactile, so, as it seems to me, our interpretation of the phenomena of the universe must be very inadequate if we do not mentally co-ordinate the idea of force with that of motion, and recognize it as the 'efficient cause' of those phenomena—the 'material conditions' constituting (to use the old scholastic term) only their 'formal cause.' And I lay the greater stress on this point because the mechanical philosophy of the present day tends more and more to express itself in terms of motion rather than in terms of force; to become kinetics instead of dynamics. Thus from whatever side we look at this question—whether the common sense of mankind, the logical analysis of the relation between cause and effect, or the study of the working of our own intellects in the interpretation of nature—we seem led to the same conclusion, that the notion of force is one of those elementary forms of thought with which we can no more dispense than we can with the notion of space or of succession."

He illustrated this by comparing Kepler's discovery of the three laws of planetary motion—isolated facts, true as far as observed—with Newton's deductions of the laws of gravity, which at once proved and explained Kepler's laws. But even here we may not have reached solid ground. That such laws are absolutely without exception we have no warranty.

Hence from our study of the mode in which we arrive at those conceptions of

the orderly sequence observable in the phenomena of Nature which we call "laws," we are led to the conclusion that they are human conceptions, subject to human fallibility, and that they may or may not express the ideas of the great Author of Nature. To set up these laws as self-acting, and as either excluding or rendering unnecessary the power which alone can give them effect, appears to us as arrogant as it is unphilosophical. To speak of any law as "regulating" or "governing" phenomena is only permissible on the assumption that the law is the expression of the *modus operandi* of a governing power.

The speaker eloquently concluded:—

"Thus we are led to the culminating point of man's intellectual interpretation of Nature—his recognition of the unity of the power of which her phenomena are the diversified manifestations. Towards this point all scientific inquiry now tends. The convertibility of the physical forces, the correlation of these with the vital, and the intimacy of that nexus between mental and bodily activity, which, explain it as we may, cannot be denied, all lead upward towards one and the same conclusion, and the pyramid of which that philosophical conclusion is the apex has its foundation in the primitive instincts of humanity. By our own remote progenitors, as by the untutored savage of the present day, every change in which human agency was not apparent was referred to a particular animating intelligence. And thus they attributed not only the movements of the heavenly bodies, but all the phenomena of Nature, each to its own deity. These deities were invested with more than human power; but they were also supposed capable of human passions, and subject to human capriciousness. As the uniformities of Nature came to be more distinctly recognized, some of these deities were invested with a dominant control, while others were supposed to be their subordinate ministers. A serene majesty was attributed to the greater gods who sit above the clouds; whilst their inferiors might 'come down to earth in the likeness of men.' With the growth of the scientific study of Nature the conception of its harmony and unity gained ever-increasing strength. And so among the most enlightened of the Greek and Roman philosopers we find a distinct recognition of the idea of the unity of the directing mind from which the order of Nature proceeds; for they obviously believed that, as our modern poet has expressed it,

> "'All are but parts of one stupendous whole,
> Whose body Nature is, and God the soul.'

The science of modern times, however, has taken a more special direction. Fixing its attention exclusively on the order of Nature, it has separated itself wholly from theology, whose function is to seek after its cause. In this Science is fully justified, alike by the entire independence of its objects and by the historical fact that it has been continually hampered and impeded in its search for the truth as it is in Nature by the restraints which theologians have attempted to impose upon its inquiries. But when Science, passing beyond its own limits, assumes to take the place of theology, and sets up its own conception of the order of Nature as a sufficient account of its cause, it is invading a province of thought to which it has no claim, and, not unreasonably, provokes the hostility of those who ought to be its best friends. For whilst the deep-seated instincts of humanity and the profoundest researches of philosophy alike point to mind as the one and only source of power, it is the high prerogative of Science to demonstrate the unity of the power which is operating through the limitless extent and variety of the universe, and to trace its continuity through the vast series of ages that have been occupied in its evolution."

Similar topics occupied a part of the time of the last meeting of the German Medical Association, at Leipzig. Professor PREYER, of Jena, delivered an address on the Investigation of Life, in which he contended that the "mechanical" explanation of life was the one that investigators could pursue to most purpose. Among the addresses at the other general meetings was one by Professor DUBOIS-REYMOND, on the Limits of Scientific Inquiry, in which he concluded that the human mind would never come to understand the essential nature (*das Wesen*) of matter and force, nor of consciousness.

MURDER AS A FINE ART.

One of De Quincey's most finished and characteristic essays bears the whimsical title which we have prefixed to this article. With the professed admiration of a *dilettante* he describes the combination of boldness, skill, and delicacy, with which some of the heroes of the Newgate Calendar did their "little jobs" some thirty or forty years ago.

But those brilliant performers, however eminent in the devices of their day, were in the primitive and early ages of artistic and elegant assassination. We surpass them as much in our day in this as in the facility of transportation or communication.

Our readers have noted, within a year, three alleged murders, or series of murders, of the most striking characteristics, in each of which the deeds were asserted to have been perpetrated by the employment of concentrated vegetable or chemical poisons. Dr. Schoeppe was accused of the murder of Miss Steinnecke with hydrocyanic acid; Mrs. Wharton used, according to her accusers, tartar emetic; Dr. Medlicott, atropia and morphia. The accused have all been acquitted, and we hope correctly. But what must startle every reader, even the most indifferent, in perusing the reports of these trials, is the utter and irreconcilable discrepancy which appears in the medical testimony in all of them. The most expert specialists were placed on the stand, and contradicted each other flatly. Processes detailed by the one side as positive and final in proving the presence or absence of the poisons in question, were derided and pronounced futile and useless by the other. Symptoms and conditions asserted by the one set of medical witnesses to point unmistakably to a poisonous agent, were explained by other physicians of equal reputation to be well-recognized appearances of familiar diseases.

From this conflict and contradiction, what conclusion can be derived? This, assuredly, and this only: that there are many poisons which *cannot* be so positively detected by the symptoms they produce during life, or the marks of their presence after death, that a jury can bring in a verdict of guilty on evidence of this character alone.

Let the murderer succeed in destroying the evidence that he possessed such poisons, and collateral proof of that nature, and it seems he can, without much fear of doctors or chemists before his eyes, administer his fatal draught, call in the family physician, and calmly abide the result. Why, if this continues, we shall drift back to imitate the days of the Marchioness of Brinvilliers, and the famous *poudres de succession*, sold as a certain means of giving heirs early possession of their paternal estates.

Fortunately, much of this uncertainty, we believe, is attributable to the custom of *partisan witnesses*, a usage that should be early and forever abolished.

Notes and Comments.

Pregnancy in a Woman Fifty-one Years Old.

Dr. Anderson, of Louisville, Kentucky, mentions the case of a woman, aged fifty-one, who was delivered at full term one morning, by a midwife, of a still-born child. The placenta remained. The next day, at noon, he saw the patient, when he found the uterus well contracted, os dilated, and a small portion of the placenta and the cord protruding. There had been no hemorrhage. On introducing his hand he discovered the upper part of the placenta firmly adherent, while that nearest the os was detached, and rolled on itself. With a little manipulation he removed the entire mass. The patient made a good recovery. She had given birth to a living child seven years before. Since that time she had menstruated irregularly. She was exceedingly thin, and her hair was white. Some months before her last confinement she had consulted Dr. A. about an enlargement of her abdomen, which she thought was dropsical. On examination he heard the sounds of the fœtal heart. The patient had never for a moment suspected pregnancy. Dr. A. wished to inquire of the

Fellows whether they had met with pregnancy in persons of his patient's age, or older?

Dr. Speed stated that he was once called to see a lady fifty-three years of age, whose youngest child was nine years old. She had been visited twice that day by a physician of Louisville, now dead, who had given paregoric for what he said was belly-ache. Dr. S. found the patient in labor, which ended safely to both mother and child. The woman declared she had no thought of being pregnant.

Ozone in the Atmosphere.

M. HOUZEAU, an eminent member of the Academy of Rouen, has introduced a novel method for the production and test of ozone. He obtains the ozone by the action of hydrochloric acid on binoxide of barium. He has found that paper rose-colored by litmus, and coated in part with iodide of potassium, was not acted upon by these substances, other than ozone, which affect the iodide of potassium. With this test he found that odorous oxygen (ozone) exists in country air in its normal state, reaching, at its maximum, the proportion of 1-140,000. Ozone may be found in small towns, but is almost entirely absent from great centres of population. In spring it appears very abundant; in winter it shows very little action. From violent motion of the atmosphere during storms, ozone accumulates to a prodigious extent. The Rouen chemist has obtained in a litre of common oxygen from 60 to 120 milligrammes of odorous oxygen. In such proportion ozone has no longer those beneficial effects which are seen in nature to result from its distribution; when concentrated it is dangerous for respiration, burns the organic tissues, blackens and corrodes silver, and has even greater discoloring power than chlorine. On contact with it a mixture of equal parts of phosphoretted hydrogen and oxygen explodes with violence.

Calabar Beans for Constipation.

Calabar beans have, until lately, been but little used, except for contracting the pupil of the eye, and by Dr. OGLE in chorea. Dr. VICTOR SUBBOTIN, in the *Deutsch Archiv. Klin. Med.*, proposes Calabar beans for atony of the bowels, observing that it has been found by BAUER, and confirmed by A. V. BESOLD and others, that this drug produces a cramp-like condition in organs that are supplied with involuntary muscular fibres.

He uses the preparation in the following form:

℞. Ext. sem. physostig. ven., grs. iv.;
Glycerin. puri, ʒij.
Solve. sig. Four times a day, four drops.

He first administered this solution to a female who was much constipated from atony of the bowels. After the patient had used this preparation twice, a swelling in the abdomen, caused by fæcal matter, disappeared permanently, and the patient was cured. Her constipation had, however, once already disappeared, temporarily, by the use of aloes and rhubarb. Dr. SUBBOTIN has since treated two cases of atony of the bowels and one case of chronic bronchial catarrh (atonic state of the bronchial walls) most successfully with the Calabar beans.

Excision of the Mamma for Cancer.

Dr. HARDIE advocated, at the Manchester Medical Society, particularly, incisions well free from diseased tissue, the removal of axillary glands beyond those affected, and prompt interference in the case of a return of the disease should it be within reach. With such precautions, he believed, this operation would be much more successful than it generally is. He showed two cases. One had been operated on four years ago; in this case the disease returned in the axilla three months afterwards, and a second operation was performed. The other was operated on two years ago, and there had been no return. Both patients were now in excellent health, with soft movable cicatrices, and no appearance of return of disease.

Small-pox at Shamokin.

Dr. C. W. WEAVER writes us:—"We have had about 500 cases of small-pox here, 100 of which have proved fatal. Successful vaccination with humanized virus is entirely protective in all cases; but a great many of our people will not be vaccinated, and they are the ones that get the disease. Had Governor Geary's recommendation to the Legislature, to make vaccination compulsory, been carried into effect, those 100 lives in Shamokin would not have been lost. Has not the medical profession of Pennsylvania influence enough, if concentrated, to bring about such legislation?"

Statistics of the Profession in France.

Dr. REVILLOUT, writing in the *Gazette des Hopitaux*, calls attention to some statistics published by the French Minister of Public Instruction. Among other matters, there are tables giving, for each department, the number of physicians and *officiers de sante* in 1847, 1853, 1857, and 1866. In 1866, there were 11,643 doctors of medicine, being 1000 more than in 1847; while the number of *officiers de sante* was 5697, the decrease, as compared with 1847, being 2145. There was thus a total decrease of 1145 medical practitioners, notwithstanding that the population had increased from thirty-four and a half millions to nearly thirty-eight millions. M. REVILLOUT attributes this falling off in great measure to the defective encouragement afforded by the State to high-class education.

Determination of Sugar in Urine.

Prof. SEAGEN says: The following conclusions are deduced from a series of experiments:

1. There is no reliable reagent known which proves the presence of very small quantities of sugar in the urine as certain.

2. The presence of but small quantities of sugar in the urine, in case of many pathological and physiological conditions, cannot be proved beyond a doubt.

3. Normal urine does not contain sugar in such quantities as would enable the chemist to prove its presence.

4. Normal urine contains small quantities of a substance which reduces copper. To prove that a portion of it is sugar is impossible with our present means.

Antagonism of Strychnia and Chloral.

M. RABUTEAU, at a sitting of the Société de Biologie, denied the alleged antagonism in the action of chloral and strychnine, asserted recently by various writers, which has been much discussed. His experiments lead him to opposite conclusions. Moreover, he considers that the experiments of M. PERSONNE place it beyond doubt that chloral, administered in small doses, acts like chloroform administered in a continuous manner. In a large dose, there is a transformation of a part of the chloral; the other acts by its own properties. We have, then, to do with a poison which would add its effects to those of the strychnine, if the latter had been previously injected.

Chloralum and Chloralum Preparations as Disinfectants.

According to the results of different analyses, these articles derive their origin from a clay containing iron and lime, which is treated with hydrochloric acid; the solution as well as the dried residue are sold for disinfecting purposes, but have only a trifling value except as deodorants.

CORRESPONDENCE.

Polypus Uteri—Importance of a Correct Diagnosis.

EDS. MED. AND SURG. REPORTER:

I send you a history of a case that I deem of sufficient importance to report through the columns of the MEDICAL AND SURGICAL REPORTER.

Mrs. Sarah Brayford, aged about 27 years, married, one child, robust, with plethoric habit. About four years since was attacked with pains resembling those of labor, during her menstrual flow, which lasted for a period of two weeks, recurring again at the end of three weeks, or, in other words, she became unwell every three weeks, with pain, etc. She was prevailed upon, after a lapse of about six months, to consult Dr. G. F. B., who pronounced the case one of simple menorrhagia, with prolapsus uteri. At his second visit he inserted the ordinary glass pessary, which remained until her next monthly period, when flooding was so great that they sent for the doctor again; it being in the night he would not go until the next day, whereupon the services of an old woman were brought into play, who removed the pessary, and in doing so discovered that there was something hanging in the vagina, attached to the womb, which fact was communicated to the doctor, who persisted that it was simply prolapsus. Not satisfied with the treatment, Dr. B. was discharged, and Dr. W. called, who examined, and pronounced it the result of a cold, which he could cure within three months; after one year's trial he was discharged, and Dr. No. 3 was called. He promised a sure cure; after examination he pronounced it, like Dr. No. 2, the result of a cold and weakness, but the others had not given the right medicine, and nobody but himself knew what the right medicine was. One year's trial was allotted to him, but like his predecessors, he was no more in luck or

success. He was discharged, and Dr. H., or No. 4, was called, who went through the regular routine of questioning, digital and instrumental examinations, and pronounced it prolapsus, with ulceration of the os externum, whereupon he ordered vaginal injections of argenti nitras, external support, internal support, a baby, etc.

Thus it went on for over one year; occasional examinations were made. Unfortunately, the baby clause was not one of the possibilites in this case.

On Wednesday, the 18th of September, she was taken with tremendous flooding, which was only checked by the timely calling of my friend, Dr. P. A. B., who found her in a state of syncope, pulseless, etc.; stimulants were given at once, together with the vin. ergota, which controlled the hemorrhage. I was invited by the doctor to see her in the evening, who had pronounced the case a polypus of the uterus, its attachment being at the os internum. He requested me to assist in the removal, which was done the next day, bringing away a tumor the size of a large teacup, fibroid in its character. The operation was performed by seizing the neck of the tumor with a long pair of forceps, and removing it with a clean cut; to the stump a pledget of lint, saturated with liq. ferri subsulph., was placed so that it could be easily withdrawn by the means of a thread. The operation did not necessitate the patient to confinement to the bed but three days, and on the fourth she was able to be about the house.

We find here a case of four years' standing, which was diagnosed by an old woman; the physicians were informed, yet they failed to recognize the trouble after being informed of the fact. She was treated by three physicians of the regular school, but they made precisely the same mistake that was made by the quack. Why is it that physicians who are possessed of ordinary intelligence mistake a case where the diagnostic signs are so plain that an old woman can make them out? When will physicians learn to be careful in their opinions, and when there is an obstinate case call in counsel, and, if in error, try to correct it, not have their names heralded forth by an ignorant community, bringing disgrace, not only upon themselves, but the profession at large.

Respectfully,

PHILIP WEBER, M. D.,

Sept. 24, 1872. *Pennsylvania.*

Reply to the Communication of Dr. C. F. Perkins on Temperance.

EDS. MED. AND SURG. REPORTER:—

Dr. C. F. PERKINS, in a recent number of the REPORTER, has given a definition of Temperance, and a brief history of the efforts made during the last fifty years to diminish the use of intoxicating liquors. While to a great extent I think his statements correct, there are some points in the article to which I wish to take exception.

Regarding the work described by him as having been performed by Drs. RUSH and BEECHER, and the Washingtonian Society, I will have nothing to say at present. I agree with the Doctor in his description of the magnitude of the evil. Intemperance, truly, "like an undying monster, is gnawing at the vitals, and corrupting the life's blood of the noblest, purest, and fairest of earth," and hurrying to untimely graves tens of thousands of the citizens of our own country. I do not believe, however, that the advocacy or practice of *his* principles is going to accomplish much toward arresting this mighty flood.

Every person who will give the subject a thoughtful consideration, and carefully observe its workings, I think, can arrive at no other conclusion than that the only hope of salvation for those who are slaves of the intoxicating cup is not in moderation or temperance, but in *total abstinence.* If they would become reformed men, they *must abstain.* The object to be accomplished is to destroy the appetite for alcoholic liquors, and how can this be done if they continue to indulge this abnormal desire, though it be only occasionally and moderately? Will it not, on the contrary, be speedily aroused in all its former fury? Certainly! Reason itself teaches us that the only safe practice is total abstinence.

But what to me is most surprising, and quite ridiculous and presumptuous, is that the Doctor should boldly assert that the Divine Scriptures sanction the use of alcoholic liquors as a beverage. The idea of the Word of God advocating the use of an article that is fraught with naught but misery and sorrow, that is detrimental to the interests of humanity in both a temporal and spiritual sense, is so preposterous that I cannot for a moment entertain the thought. I contend that the Bible nowhere sanctions its use. I do not think that he

can point to a passage, anywhere, where its use as a beverage is either directly or indirectly encouraged. It is true that the use of wines is in some instances approved of; but I have no idea that those of a *fermented* character are referred to. Both fermented and unfermented wines are spoken of in the Bible. That referred to approvingly is doubtless of the former character; while the latter is most emphatically condemned, as will be seen in the following passages: "Wine is a mocker, strong drink is raging; and whosoever is deceived thereby is not wise." "Look not thou upon the wine when it is red, when it giveth his color in the cup, when it moveth itself aright; at the last it biteth like a serpent, and stingeth like an adder."

I proceed next to speak of the advisability or value of the Total Abstinence Pledge. In regard to this, the Doctor propounds the following question: "Is it not rather a sandy foundation?" I propose to answer this negatively. I believe that total abstinence is the only safe and successful rule, and I believe also that the pledge is the most effectual mode ever devised to assist in carrying out in the life its principles. It is a corner-stone on which have been erected many permanent superstructures; it is a foundation upon which many have built and been secure; even amidst the severest temptations they have been enabled to stand. Thousands of reformed men refer with pride and gratification to-day to the hour when they had the moral courage to take the pledge, and attribute their successful reformation to that act. I cannot agree with the Doctor, that "amidst the flourish of pledges manhood is scarcely considered," or that "it is an evil to be trammeled with pledges and promises made in earlier or later life." Take, for example, a man who has for years been addicted to strong drink, whose appetite has long been pampered, who has such insatiable desires for stimulating liquors that he does not pass a single day without gratifying that appetite; which would be considered the noblest exhibition of manhood in him, by every considerate person, by every lover of humanity—even though pledges were flourished on every hand, and he was urged by an affectionate wife and loving children, though friends should join in the entreaty, and every means possible be brought into requisition to induce him to sign the pledge—which, I repeat, would exhibit the higher degree of manhood in him, to take the pen and ink and sign a life-long total abstinence pledge from all intoxicating liquors, or to defiantly spurn the pledge and reject the earnest entreaties of loved ones, and allow his power of appetite to so control and fascinate him as to be unwilling or unable to sever the force that held him to the intoxicating cup? Let the reader answer this in his own mind.

The Doctor seems to dislike the binding effect of the pledge; now I look upon this as being its most valuable quality; its binding force follows us wherever we may go; though separated far from friends and those by whom we were surrounded when taking it, it still stares us in the face, and when, perchance, we are importuned to indulge in alcoholic drinks, the first thought that rushes to the mind is, I cannot, my pledge will not permit it.

I cannot conceive in what manner the pledge can cause uneasiness; if we are men of true principle we will not indulge the thought of violating it; though a suggestion of that kind may arise in the mind it will be unheeded, while in the course of time our principles will become so fixed that we will scarcely realize that we are bound by it.

The query frequently arises in my mind, why is it that men are so opposed to the Total Abstinence Pledge, while pledges in general are not looked upon as of so despicable a character. When the youthful bride and groom are about to be united in the bonds of matrimony, and are desired to pledge fidelity each to the other for life, no one is heard to raise objections, or warn them against being thus trammeled by a pledge, telling them they will be unhappy under restraint of that kind. And yet the pledge in the subject under consideration is just as reasonable and proper as in the case just referred to.

In concluding this communication I would urge upon my brethren and friends of the medical profession the importance of giving this subject their earnest consideration and attention. The monster intemperance is lifting its hoary head everywhere throughout this glorious land of ours; it is sapping the very life of the nation, and is weakening the intellectual and moral powers of her best citizens. And shall we, the members of the noblest and most philanthropic of the learned professions, remain unmoved, and

fail to exert the influence that our position gives us?

L. B. KLINE, M. D.

Catawissa, Pa., Sept. 20, 1872.

NEWS AND MISCELLANY.

Edward Parrish—Report of the Alumni Committee on Memorial.

An adjourned meeting of the Alumni Association and graduates generally of the Philadelphia College of Pharmacy was held last week in the hall of the college. Mr. C. L. Eberle occupied the chair.

The committee appointed on the 17th instant to draft resolutions reported as follows:—

At a meeting of the Alumni Association and graduates of the Philadelphia College of Pharmacy, held September 17, 1872, the following memorial, expressive of our sad bereavement in the death of Professor Edward Parrish, was directed to be presented to the family of our beloved friend and teacher, towards whom our hearts are drawn in tender sympathy, who have been so suddenly bereft of their life-long companion and friend, and are stricken with a grief too full for utterance and almost overwhelming. We feel that there is not one here in this meeting, of those who have been privileged to sit under his instruction, but who can bear testimony to the great and almost irreparable loss which the profession and general community have sustained, and to the personal sense of a vacancy in the circle of our truest and dearest friends.

To this community in which he has so long labored, and maintained an untarnished reputation, where indelibly are written the marks of his earnestness, integrity, philanthropy and public spirit, his memory will long be green.

The graduates and students of the college will sorely miss their genial, warm-hearted and fatherly teacher, who was so approachable, and so readily entered into sympathy with them in the difficulties that beset their paths.

The profession over this broad land will acknowledge and deplore his loss, and wherever his professional merit has been recognized, or his name introduced, all must unite in regretting the dispensation that has removed him thus early from the field of his usefulness.

But while we thus express our feeling of a common sorrow we have the great consolation of all Christian hearts, to know that he was calmly prepared for and anticipated the sad event, that he was surrounded by those who, while strangers, ministered tenderly to the necessities of his last illness, and, that soothed and sustained by an unfaltering trust, he approached his God "Like one that draws the drapery of his couch about him, and lies down to pleasant dreams."

The above paper was unanimously adopted.

Harlem, N. Y., Medical Association.

The Harlem Medical Association held their regular monthly meeting at the residence of Ira B. Read, M. D., last Wednesday evening. It was organized Aug. 6th, 1869, and has a membership of about twenty-five. The officers are, J. O. Farrington, M. D., President; A. D. Rockwell, M. D., Vice President; H. G. Forbes, M. D., Secretary; M. McLean, M. D., Treasurer; and John Shrady, M. D., H. L. Sheldon, M. D., and H. H. Gregory, M. D., Trustees.

Their plans for popularizing sanitary knowledge this fall and winter, if formed, have not been made public.

The American Public Health Association.

A large number of medical and other scientific men have organized as the American Public Health Association, with Stephen Smith, of New York, President; Edwin M. Snow, of Providence, First Vice, and C. B. White, of New Orleans, Second Vice President; John H. Rauch, of Chicago, Treasurer; Elisha Harris, of New York, Secretary; Francis Bacon, of New Haven, William Clendenin, of Cincinnati, C. C. Cox, of Washington, Henry Hartshorne, of Philadelphia, Moreau Morris, of New York, and John M. Woodworth, of Washington, Executive committee. Various important subjects are referred to special committees. The present number of members is ninety-five, all well-known workers in the field of sanitary improvement in the cities of the United States and Canada. The next meeting will be at Washington in the last week in February.

Valuable Invention.

A new industrial art, under the name of "helioautographic printing," is now attracting attention in Paris. The process is said to enable an artist to make his own designs and drawings, to print from them upon photographic paper, and reproduce the same upon lithographic stone, so as to obtain impressions of his own work, in the minutest details, independent of the engraver or lithographic draughtsman. This will be of great value in scientific researches.

The Ruth Murder—Dr. Medlicott Released.

Dr. Medlicott, arrested about eighteen months ago for the alleged murder of a patient, Mr. J. M. Ruth, with a compound of morphia and atropia, has been at last released, the District Attorney having entered a *nolle prosequi*. His case has excited very great attention among toxicologists.

Hail Storm of Salt Pieces.

Müller states that on the 20th of August, 1870, upon the St. Gotthard Mountain, for five minutes a hailstorm happened to fall which consisted of rounded pieces of salt, similar in character to those which are found in North Africa.

Election of Professor.

At a meeting of the Board of Trustees of the Philadelphia College of Pharmacy, Prof. William Procter, Jr., was unanimously elected to the Chair of Pharmacy, made vacant by the death of Prof. E. Parrish. Previous to the election of Prof. E. Parrish, this chair was filled by Prof. Procter for twenty consecutive years.

Official Report on Quarantines.

An act of Congress was passed at the last session directing the detail of one or more medical officers of the Regular Army, during the coming season, to visit each town or port on the coast of the Gulf of Mexico and the Atlantic coast which is subject or liable to invasions of yellow fever, and to confer with the authorities of such port or town with reference to the establishment of a more uniform and effective system of quarantine, and to ascertain all facts having reference to the outbreaks of this disease in such ports or towns, and whether any system of quarantine is likely to be effective in preventing invasions of yellow fever, and, if so, what system will least interfere with the interests of commerce at said ports. They are to make a detailed report on this subject to the Secretary of War, through the Surgeon General, on or before the assembling of the third session of the Forty-second Congress, in December, 1872.

Personal.

England has recently lost two able surgeons, Mr. ALFRED POLAND, F. R. C. S., Surgeon to Guy's Hospital, and FREDERICK C. SKEY, C. B. F. R. S., etc.

Up to the period of his death, Mr. Poland was actively engaged in contributing numerous essays, on special surgical subjects, to the medical press, all bearing marks of great research and erudition combined with much practical skill and forethought. His professional pursuits and success in life were, however, sadly marred by failing health, induced, in the first instance, by purulent infection contracted in his hospital work, a subject on which he treated from personal experience in the article on "Animal Poisons," in Holmes' *System of Surgery*. His susceptibility to repeated attacks, originating, as he believed, from the same cause, disabled him at length from his more active duties; and about five years ago he was reluctantly compelled to relinquish his lectures on surgery, and to devote himself entirely to the work in the wards. During the last two years he had been suffering from chronic catarrh, and was forced, in consequence, to retire to the house of his father, Sir William Poland, of Blackheath.

Mr. Skey was a valuable contributor to the advancement of professional knowledge, and a paper on Muscular Fibre, published in the *Transactions* of the Royal Society, obtained for him the Fellowship. He was the author of works on *The Venereal Disease*, on *Operative Surgery*, and on *Hysteria*. He published also Lectures on the *Prevalent Treatment of Disease*, and on the *Relative Merits of the Two Operations for Stone*. He was also a frequent writer in the medical and other journals. The immediate cause of death was ulceration of the intestines.

The Leipzig Meeting of the German Medical Association.

The Association of German Naturalists and Physicians held its forty-fifth meeting at Leipzig, from the 12th to the 18th of August. The members enrolled amounted to 1277. Three general meetings were held in the new theatre, at which addresses were delivered. The chief address or "Festrede" was given by Professor Ludwig, who reverted to the labors of Oken and Alexander von Humboldt in founding and organizing the Association, and afterwards proceeded to deal with the question whether, through the character of the modern time, through the striving after rapid productiveness and wealth, the pursuit of the ideal and the scientific would be made to cease.

NOTES AND QUERIES.

Extirpation of the Ovaries.

Messrs. Editors:—Is there a single example on record of the extirpation of healthy ovaries in the human female, except that reported by me? If so, when, and where?

Respectfully, P. H. N.

Rome, Georgia.

REPLY.—Certainly; many such cases are on record. It was not unfrequent, in Ancient Greece and Rome, to see "female eunuchs," as they were called. Sir James Y. Simpson considers that they were "castrated" by extirpation of the ovaries, not by the operation on the labia still frequent in Abyssinia. (See his "Works," Vol. iii, p. 484, ed. of 1872.) The eminent Dutch surgeon of the last century, Boerhaave, relates that a case came under his knowledge where a swine-spayer castrated his daughter, in order to put a stop to her licentious practices. Other examples could easily be found.

OBITUARY.

DR. E. PARRISH.—Professor Edward Parrish, M. D., whose death at Fort Sill, Indian Territory, on September 9th, has been announced, was born in Philadelphia in 1823, and was a son of the celebrated Dr. Joseph Parrish. After graduating in medicine he was appointed a professor in the Philadelphia College of Pharmacy, with which institution he has ever since been connected. He was also for a time President of Swarthmore College. Professor Parrish was the author of many medical essays and works, the principal one of which, "Parrish's Pharmacy," has always been considered a standard authority. At the time of his death he was visiting the Western Territories as a Special Peace Commissioner to the Kiowa Indians.